

JUMBO AIR BELT SANDER

Model 96989

SET UP AND OPERATING INSTRUCTIONS



Diagrams within this manual may not be drawn proportionally.

Due to continuing improvements, actual product may differ slightly from the product described herein.

Distributed exclusively by Harbor Freight Tools[®].

3491 Mission Oaks Blvd., Camarillo, CA 93011

Visit our website at: http://www.harborfreight.com



Read this material before using this product. Failure to do so can result in serious injury. SAVE THIS MANUAL.

Copyright[©] 2007 by Harbor Freight Tools[®]. All rights reserved. No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools.

For technical questions or replacement parts, please call 1-800-444-3353.

SAVE THIS MANUAL

Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

IMPORTANT SAFETY INFORMATION

In this manual, on the labeling, and all other information provided with this product:



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

ADANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

AWARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

ACAUTION

CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to personal injury.

CAUTION

CAUTION, without the safety alert symbol, is used to address practices not related to personal injury.

GENERAL SAFETY RULES



WARNING! Read all instructions

Failure to follow all instructions listed below may result in serious injury. The term "tool" in all of the warnings listed below refers to your Jumbo Air Belt Sander.

SAVE THESE INSTRUCTIONS

1. Work area safety

- a. Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- b. Do not operate tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. *Tools can create sparks which may ignite the dust or fumes.*
- c. Keep children and bystanders away while operating. *Distractions can cause you to lose control.*

2. Personal safety

- a. Stay alert, watch what you are doing and use common sense when operating this Jumbo Air Belt Sander. Do not use while you are tired or under the influence of drugs, alcohol or medication. *A moment of inattention while operating may result in serious personal injury.*
- b. Use safety equipment. Proper safety equipment used for appropriate conditions will reduce personal injuries.
- c. Avoid accidental starting. Ensure that your hand is off the Throttle Lever (26) before attaching air supply. *Carrying tools with your finger on the switch invites accidents.*
- d. Do not overreach. Keep proper footing and balance at all times. *This enables better control of the tool in unexpected situations.*
- e. Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
- f. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. *Use of these devices can reduce dust-related hazards*.

3. Power tool use and care

- a. Do not force the Jumbo Air Belt Sander. Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it was designed.
- b. Do not use the tool if the switch does not turn it on and off. Any tool that cannot be controlled with the switch is dangerous and must be repaired.

- c. Disconnect the air supply before making any adjustments, or storing power tools. Such preventive safety measures reduce the risk of starting the tool accidentally.
- d. Store this Jumbo Air Belt Sander out of the reach of children and do not allow persons unfamiliar with the tool or these instructions to operate.

 Tools are dangerous in the hands of untrained users.
- e. Maintain this tool. Check for misalignment or binding of moving parts, abnormal noises, breakage of parts and any other condition that may affect the tool's operation. If damaged, have the tool repaired before use. *Many accidents are caused by poorly maintained tools.*
- f. Use this tool in accordance with these instructions and in the manner intended for this particular type of tool, taking into account the working conditions and the work to be performed. Use of this tool for operations different from those intended could result in a hazardous situation.

4. Service

a. Have your Jumbo Air Belt Sander serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the tool is maintained.

VIBRATION HAZARD

This Jumbo Air Belt Sander vibrates during use. Repeated or long-term exposure to vibration may cause temporary or permanent physical injury, particularly to the hands, arms and shoulders. To reduce the risk of vibration-related injury:

- 1. Anyone using vibrating tools regularly or for an extended period should first be examined by a doctor and then have regular medical check-ups to ensure medical problems are not being caused or worsened from use. Pregnant women or people who have impaired blood circulation to the hand, past hand injuries, nervous system disorders, diabetes, or Raynaud's Disease should not use this tool. If you feel any medical or physical symptoms related to vibration (such as tingling, numbness, and white or blue fingers), seek medical advice as soon as possible.
- 2. Do not smoke during use. Nicotine reduces the blood supply to the hands and fingers, increasing the risk of vibration-related injury.
- 3. Wear suitable gloves to reduce the vibration effects on the user.
- 4. Use tools with the lowest vibration when there is a choice between different processes.
- 5. Include vibration-free periods each day of work.

- 6. Grip tool as lightly as possible (while still keeping safe control of it). Let the tool do the work.
- 7. To reduce vibration, maintain the tool as explained in this manual. If any abnormal vibration occurs, stop use immediately.

SPECIFIC SAFETY RULES

WARNING! To prevent serious injury and/or property damage:

- 1. Wear ANSI-approved safety glasses, heavy-duty work gloves, and NIOSH-approved dust mask/respirator under full face shield during use.
- 2. Secure brackets and guards in place before use.
- 3. Do not exceed maximum air pressure of 90 PSI.
- 4. Use only clean air from an air compressor. Never use bottled compressed air, or any gas, such as helium.
- 5. Inspect before use; do not use if parts are loose or damaged.
- 6. Maintain labels and nameplates on the tool. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
- 7. Avoid unintentional starting. Prepare to begin work before turning on the tool and/or attaching the air supply.
- 8. Do not carry the Jumbo Air Belt Sander by the air hose, or the hose from the air supply.
- 9. Do not force or apply heavy pressure to the Jumbo Air Belt Sander. Let the Sander do the work.
- 10. Do not direct air from the hose at yourself, others, or animals at anytime.
- 11. Do not lay the Jumbo Air Belt Sander down until it has come to a complete stop. Moving parts can grab the surface and pull the tool out of your control.
- 12. When using the Jumbo Air Sander, maintain grip on the tool with both hands to resist starting torque.
- 13. Do not leave the Jumbo Air Belt Sander unattended when it is attached to an air supply. Turn off the tool, and disconnect it's air supply before leaving.
- 14. Use clamps (not included) or other practical ways to secure and support the workpiece to a stable platform. Holding the work by hand or against your body is unstable and may lead to loss of control.
- 15. This product is not a toy. Keep it out of reach of children.

SKU 96989

- 16. Some dust created by power sanding, sawing, grinding, drilling, and other construction activities, contains chemicals known [to the State of California] to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
 - Lead from lead-based paints
 - Crystalline silica from bricks and cement or other masonry products Arsenic and chromium from chemically treated lumber
 - Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles. (California Health & Safety Code § 25249.5, et seq.)
- 17. WARNING: The brass components of this product contain lead, a chemical known to the State of California to cause birth defects (or other reproductive harm). (California Health & Safety code § 25249.5, et seq.)
- 18. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.



SPECIFICATIONS

Construction Materials	Air Motor Housing, Handle Bracket, Rear Belt Cover: Cast Aluminum Throttle Lever & Side Plate: Sheet Steel Air Inlet: Machined Steel Housing Grip: ABS Abrasive Belts: Aluminum Oxide w/Reinforced Cloth Fiber Backing
Maximum Operating Air Pressure	90 PSI
Air Consumption	22 CFM (continuous), 11 cfm (intermittent use)
Air Inlet Size	1/4" X 18 NPT (Female)
Speed	19,000 RPM
Recommended Hose Size	3/8"
Abrasive Belt Size	1" W X 18" L
Belt Adjustment	Threaded Knob
Speed Regulator Adjustment	Throttle Adjusting Screw

UNPACKING

When unpacking, check to make sure that the item is intact and undamaged. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

SET UP INSTRUCTIONS



Read the <u>ENTIRE</u> IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.



Risk of accidental starting; resulting in serious personal injury. Make sure Throttle Lever of the tool to its "OFF" (full up) position and disconnect air supply before assembling or making any adjustments to the tool.

Note: For additional information regarding the parts listed in the following pages, refer to the Assembly Diagram near the end of this manual.

Assembly

Handle Assembly (16) needs to be attached. It is threaded on one end and can be attached at two different points and configured in different positions:

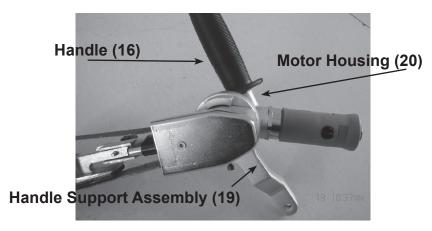


Figure 3

a. Screw the Handle Assembly (16) into the threaded end of the Handle Support (19), or into the Motor Assembly (20). **See Figure 3, 4 & 5.**

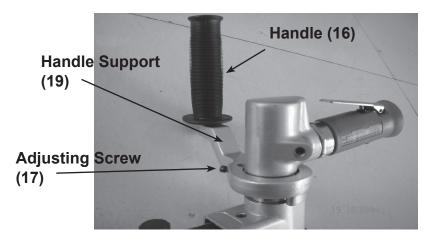


Figure 4

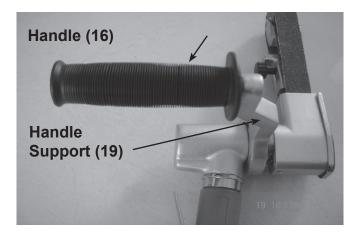


Figure 5

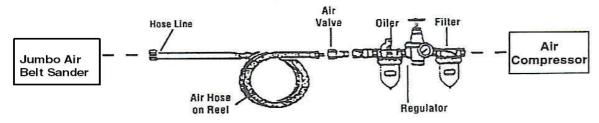
b. The Handle Support (19) may be configured differently by loosening the lower Adjusting Screw (17), repositioning the Handle Support (19) and retightening the lower Adjusting Screw (17). **See Figure 4 & 5.**

OPERATING INSTRUCTIONS



Read the <u>ENTIRE</u> IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

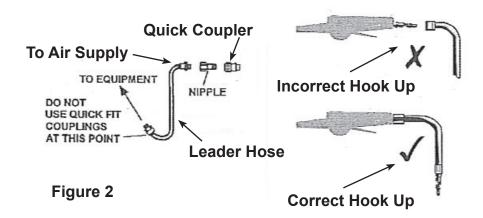
Tool Set Up



Recommended Air Line Components

Figure 1

- Hose line, air valve, oiler, filter, regulator and air hose on reel are not included with this Jumbo Air Belt Sander but are available at Harbor Freight Tools. See Figure 1
- 2. Always read and follow all manufacturer's safety precautions, setup, and maintenance instructions found in the air compressor manual you will be using with this Jumbo Air Belt Sander.



3. Vibration may cause failure if a quick change coupling is connected directly to the Jumbo Air Belt Sander. To overcome this, connect a leader hose (not included). to the Sander. A quick change coupling may then be used to connect the leader hose to the air line recoil hose. **See Figure 2**

4. Be careful not to depress the Throttle Lever (26A) during this process. **Warning:** Throttle Lever is active (without safety stop).

General Operating Instructions

- 1. With the Throttle Lever (26A) in "OFF" (full up) position, attach the air supply hose as suggested in number 3 of "Tool Set up" section on page 9 of this manual. Do not hold the Throttle Lever (26A) down while connecting the air supply hose.
- 2. Do not exceed the maximum air pressure of 90 PSI.
- 3. This Jumbo Air Belt Sander requires two hand control at all times.
- 4. Always test on scrap work piece before using the tool on the primary project.
- 5. If the speed of the Belt Sander needs adjustment beyond the control of the Throttle Lever (26A), turn off the Belt Sander, disconnect the air supply, and adjust the maximum speed of the belt with the Speed Regulator (Slotted Cap Screw) (27A). Turn it clockwise to slow the speed and counterclockwise to increase. This action moves Valve Stem (24A) in and/or out allowing the Throttle Lever (26A) only limited travel.
- 6. Connect the air supply and turn on the Jumbo Air Belt Sander and test again on a scrap work piece as in **number 4** of this section.
- 7. Always work off the "return" side of the sanding belt. This will ensure superior tracking and reduce down time of the tool.
- 8. Always sand in the same direction as the grain of the wood to avoid scoring across the grain.
- 9. To prevent accidents, turn off the tool and disconnect its air supply after use. Clean, then store the tool indoors out of children's reach.

Abrasive Belt Changing Instructions

- 1. Disconnect the air supply.
- 2. Remove the Guard (13).
- 3. Pull back on the Tension Arm (5).
- 4. Remove the worn belt and replace with identical type new belt.
- 5. Replace the Guard (13) and attach the air supply.
- 6. Adjust the belt tracking by turning the Tracking Knob (6) to the left or right while holding down the Throttle Lever (26A) just enough to keep the belt moving. The Throttle Lever (26A) controls the speed of the belt. A little pressure moves the belt slow. Increase the pressure on the Lever and the belt moves faster. The Maximum speed as set by the Speed Regulator (27A) is reached by pressing the Throttle Lever (26A) all the way down.

MAINTENANCE AND SERVICING

AWARNING

Risk of serious personal injury from accidental starting, always disconnect from air supply before performing any inspection, maintenance, or cleaning procedures.

Damaged equipment can fail, causing serious personal injury. Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

Cleaning, Maintenance, and Lubrication

- 1. **BEFORE EACH USE**, inspect the general condition of the tool. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, and any other condition that may affect its safe operation.
- 2. **AFTER USE**, clean external surfaces of the tool with clean cloth.
- 3. Keep the Guide Post's (3) Tension Shaft (8) lubricated. Occasionally put a drop of lubricating oil on Bearing (15) of Contact Wheel (21).
- 4. WARNING! If the air hose(s) of this Jumbo Air Belt Sander are damaged, they must be replaced only by a qualified service technician. Never try to repair damaged air hoses.

Troubleshooting

Problem	Possible Causes	Probable Solutions
Tool will not start or has low air pressure	 Air hose(s) damaged or connections are loose. Air regulator not set at proper PSI. 	 Check all hoses and connections. Replace if necessary. DO NOT try to repair air hose, ALWAYS replace. Check, make sure air pressure regulator on compressor is set to 90 PSI.

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

PARTS LIST FOR JUMBO AIR BELT SANDER

Part	Description	Q'ty
1	Contact Arm Assembly	1
2	Plug	1
3	Guide Post	1
4	Small Spring	1
5	Tension Arm	1
6	Tracking Knob	1
7	Large Spring	1
8	Tension Shaft	1
9	Dust Cover	1
10	Guard Hold-Down Screw	1
11	Housing	1

Part	Description	Q'ty
12	Hex-Nut	1
13	Guard	1
14	Guard Hold-Down Nut	1
15	Bearing	2
16	Handle	1
17	Adjusting Screw	2
18	Motor Lock	2
19	Handle Support	1
20	Motor Assembly	1
21	Contact Wheel	1
22	Shaft	1

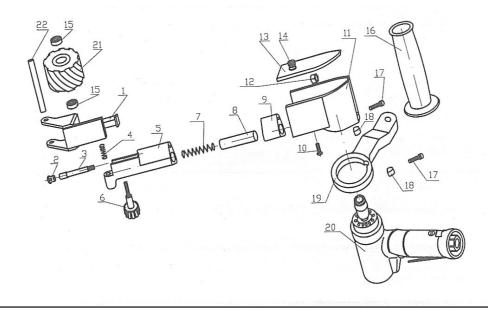
PARTS LIST FOR AIR MOTOR ASSEMBLY

Part	Description	Q'ty
1A	Drive Wheel	1
2A	Exhaust Cover	1
3A	Felt Silencer	1
4A	Air Control Ring	1
5A	Rotor Nut	1
6A	Bearing	1
7A	Shim Pack	1
8A	Spacer	1
9A	Bearing Race	1
10A	Pin	1
11A	Cylinder	1
12A	Rotor	1
13A	Blade	1
14A	Bearing Race	1
15A	Bearing	1
16A	Housing	1
17A	Screw	1
18A	Gasket	1

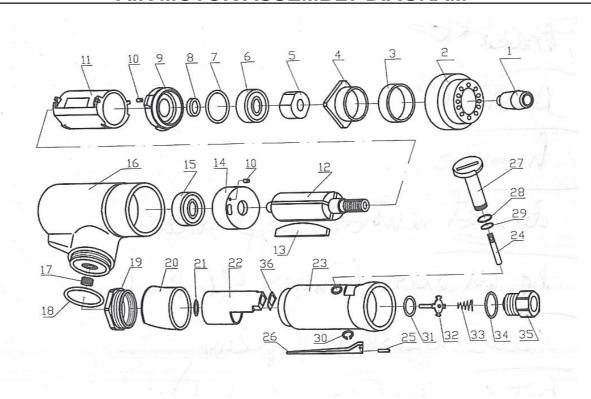
Part	Description	Q'ty
19A	Lock Nut	1
20A	Collar	1
21A	O-Ring	1
22A	Insert	1
23A	Housing	1
24A	Valve Stem	1
25A	Throttle Lever Pin	1
26A	Throttle Lever	1
27A	Speed Regulator (Slotted Cap Screw)	1
28A	Large O-Ring	1
29A	Small O-Ring	1
30A	Throttle Lever Retaining Ring	1
31A	Seal	1
32A	Tip Valve	1
33A	Spring	1
34A	Spacer	1
35A	Inlet Bushing	1

NOTE: When ordering or referring to parts from the Air Motor Assembly Diagram on page 13 of this manual, use the letter "A" after each number as shown in the Air Motor Assembly Parts List above.

JUMBO AIR BELT SANDER ASSEMBLY DIAGRAM



*AIR MOTOR ASSEMBLY DIAGRAM



NOTE: *When ordering or referring to parts from the Air Motor Assembly Diagram on this page, use the letter "A" after each number as shown in the Air Motor Assembly Parts List above.

90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

3491 Mission Oaks Blvd. • PO Box 6009 • Camarillo, CA 93011 • (800) 444-3353

Record Product's Serial Number Here:_____

Note: If product has no serial number, record month and year of purchase instead.

Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.